

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
24 February 2005 (24.02.2005)

PCT

(10) International Publication Number
WO 2005/017542 A3

(51) International Patent Classification⁷: G01R 31/28, 35/00

(74) Common Representative: KONINKLIJKE PHILIPS ELECTRONICS, N.V.; c/o Shannon Lester, 1109 McKay Drive, M/S-SJ41, San Jose, CA 95131-1706 (US).

(21) International Application Number: PCT/IB2004/051461

(22) International Filing Date: 14 August 2004 (14.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 60/495,152 14 August 2003 (14.08.2003) US

(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS, N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

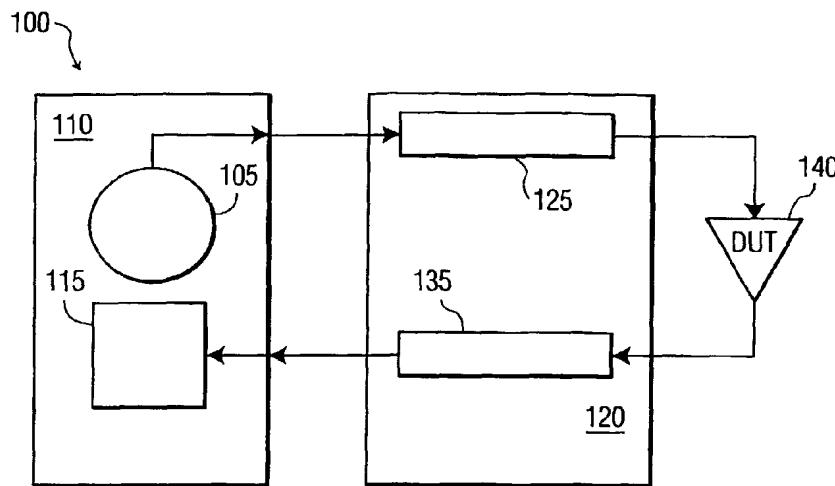
(75) Inventors/Applicants (for US only): VISSER, Hendrik [NL/US]; 1109 McKay Drive, M/S-SJ41, San Jose, CA 95131-1706 (US). SPAIN, Sherry [US/US]; P.O. Box 3001, Briarcliff Manor, NY 10510-8001 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: CALIBRATION OF TESTER AND TESTBOARD BY GOLDEN SAMPLE



WO 2005/017542 A3

(57) Abstract: In performing testing on Automatic Test Equipment (ATE) it is a challenge to accurately generate and measure RF (radio frequency) power. In an example embodiment, in a test apparatus (100) used for measuring the input and output characteristics of an amplifier (140), there is a method for determining test program parameters. The method (200) comprises calculating input loss from the test apparatus power source to the input of the amplifier (220), defining an input loss correction factor. The output loss from the amplifier output (220) to the power meter of the test apparatus is calculated, defining an output loss correction factor. Using the input loss correction factor (230), a real input power level is determined and using the output loss correction factor (230), a real output level is determined.

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:

30 June 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2004/051461

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01R31/28 G01R35/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01R H03F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 223 056 B1 (APPEL MARK J) 24 April 2001 (2001-04-24) abstract; figure 4 -----	1-8
A	US 4 246 535 A (HUANG ET AL) 20 January 1981 (1981-01-20) abstract -----	1-8
A	EP 1 047 185 A (SECURICOR WIRELESS TECHNOLOGY) 25 October 2000 (2000-10-25) abstract -----	1-8
A	PATENT ABSTRACTS OF JAPAN vol. 2002, no. 06, 4 June 2002 (2002-06-04) & JP 2002 040068 A (NEC CORP), 6 February 2002 (2002-02-06) abstract ----- -/-	1-8

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- °A° document defining the general state of the art which is not considered to be of particular relevance
- °E° earlier document but published on or after the international filing date
- °L° document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- °O° document referring to an oral disclosure, use, exhibition or other means
- °P° document published prior to the international filing date but later than the priority date claimed

- °T° later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- °X° document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- °Y° document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- °&° document member of the same patent family

Date of the actual completion of the international search

3 May 2005

Date of mailing of the international search report

11/05/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Vytlačilová, L

INTERNATIONAL SEARCH REPORTInternal Application No
PCT/IB2004/051461**C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 748 037 A (ROZENTAL ET AL) 5 May 1998 (1998-05-05) abstract -----	1-8

INTERNATIONAL SEARCH REPORT

Information on patent family members

Internal Application No
PCT/IB2004/051461

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 6223056	B1	24-04-2001	CN GB JP JP	1228004 A ,C 2332997 A ,B 3012230 B2 11289577 A		08-09-1999 07-07-1999 21-02-2000 19-10-1999
US 4246535	A	20-01-1981		NONE		
EP 1047185	A	25-10-2000	GB EP US	2349528 A 1047185 A2 6429736 B1		01-11-2000 25-10-2000 06-08-2002
JP 2002040068	A	06-02-2002		NONE		
US 5748037	A	05-05-1998	GB AU WO	2287371 A 1717095 A 9524766 A1		13-09-1995 25-09-1995 14-09-1995